

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Phillip J. Ireland, et al.

Application No.: Not Yet Assigned

Group Art Unit: 1756

Filed: August 30, 2001

Examiner: N. Barreca

For: IMPROVED PHOTOLITHOGRAPHY  
PROCESS USING MULTIPLE ANTI-  
REFLECTIVE COATINGS

**PRELIMINARY AMENDMENT**

**Box Non-Fee Amendment**

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

Prior to examination on the merits, please amend the above-identified U.S. patent application as follows:

**In the Specification**

Page 2 after the title, insert -- This application is a divisional of U.S. patent application Ser. No. 09/387,775, filed September 1, 1999, the entirety of each of which is incorporated herein by reference.--

**In the Claims**

Please cancel claims 1-31 and 52-54.

Please rewrite claims 56 and 57 as indicated on the following page.

### Replacement Claims

56. (Amended) The method according to claim 55, further comprising modeling one or more additional anti-reflective coating layers, modeling the reflective properties of said additional anti-reflective layers in the lithography modeling program during all reflective modeling steps c, evaluating the reflective properties of said additional anti-reflective layers during all evaluating steps d, and adjusting the thicknesses, indices of refraction, and absorptions of said additional anti-reflective layers during all adjusting steps e.

57. (Amended) The method according to claim 55, further comprising modeling one or more additional reflective layers and modeling the reflective properties of said additional reflective layers in the lithography modeling program during all reflective modeling steps c.

**REMARKS**


The specification has been amended to include a reference to prior application Ser. No. 09/387,775, filed on September 1, 1999, as required by 37 CFR 1.78(a)(2). No new matter has been added.

Claims 56 and 57 have been amended to correct dependencies. Claims 1-31 and 52-54 have been canceled. The pending application now contains claims 32-51 and 55-57.

Allowance of the application is solicited.

Dated: August 30, 2001

Respectfully submitted,

By   
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**Version With Markings to Show Changes Made**

56. (Amended) The method according to claim [60] 55, further comprising modeling one or more additional anti-reflective coating layers, modeling the reflective properties of said additional anti-reflective layers in the lithography modeling program during all reflective modeling steps c, evaluating the reflective properties of said additional anti-reflective layers during all evaluating steps d, and adjusting the thicknesses, indices of refraction, and absorptions of said additional anti-reflective layers during all adjusting steps e.

57. (Amended) The method according to claim [60] 55, further comprising modeling one or more additional reflective layers and modeling the reflective properties of said additional reflective layers in the lithography modeling program during all reflective modeling steps c.